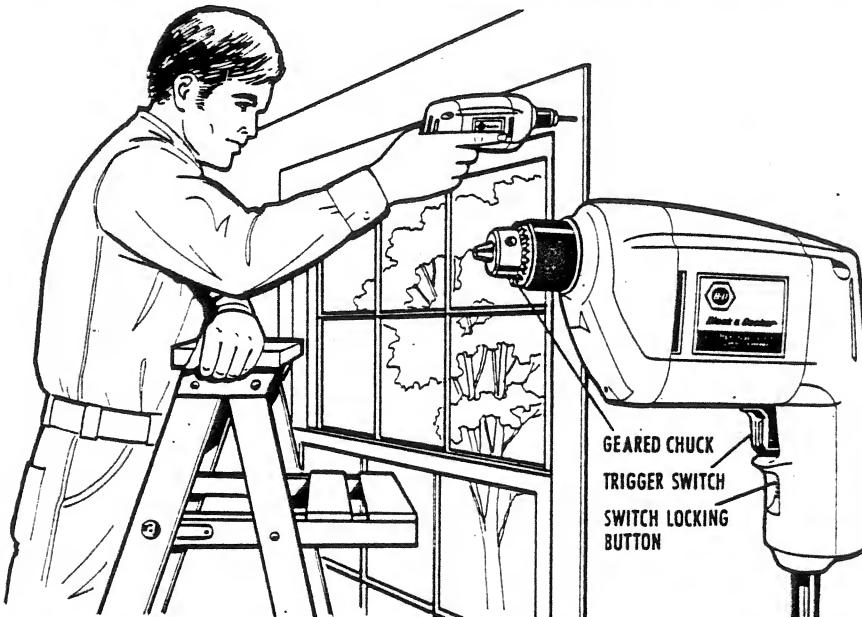




Black & Decker

OWNER'S MANUAL



Your new Black & Decker Drill is an outstanding value, combining quality construction, excellent performance and versatility with low price. It's DOUBLE-INSULATED for added safety and is a very good choice for light duty work and occasional building or remodeling projects.

Not only will it DRILL holes in practically any material, but with optional accessories it can SAND, POLISH, BUFF, DRIVE

screws, GRIND, DRIVE hole saws, MIX paint and REMOVE rust and old paint.

For personal safety and for proper operation of the Drill, please take the time to carefully read all of the safety rules and instructions in this booklet. Don't forget to send in the owner registration card.

THANK YOU for buying BLACK & DECKER!

1/4" & 3/8" DOUBLE INSULATED DRILLS

Cat. No.	Capacity		Volts AC	Amps	Switch	R.P.M.
	Steel	Hardwood				
7004	1/4"	1/2"	120	2.0	Single Speed	2500
7104	3/8"	3/4"	120	2.0	Single Speed	1200
7014	1/4"	1/2"	120	2.3	Variable Speed	0 to 2500
7114	3/8"	3/4"	120	2.3	Variable Speed	0 to 1200

1. IMPORTANT INFORMATION

SAFETY RULES FOR POWER TOOLS

1. **KNOW YOUR POWER TOOL** — Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
3. **AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tool in damp or wet locations. And keep work area well lit.
4. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place — out of reach of children.
6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
7. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
8. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
9. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
10. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
11. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. **DISCONNECT TOOLS.** When not in use, before servicing; when changing accessories such as blades, bits, cutters, etc.
15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **AVOID ACCIDENTAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. **OUTDOOR USE EXTENSION CORDS** — When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.
18. **DO NOT OPERATE** portable electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

CAUTION: When drilling into walls, floors or wherever "live" electrical wires may be encountered, DO NOT TOUCH THE CHUCK OR ANY FRONT METAL PARTS OF THE DRILL! Hold the Drill only by the plastic handle to prevent electric shock if you drill into a "live" wire.

2. IMPORTANT INFORMATION

DOUBLE INSULATION

Your Drill is DOUBLE-INSULATED to give you added safety. This means that it is constructed throughout with TWO separate "layers" of electrical insulation or one DOUBLE thickness of insulation between you and the tool's electrical system.

Tools built with this insulation system are not intended to be grounded. As a result, your Drill is equipped with a two-pronged plug which permits you to use any conventional 120 volt electrical outlet without concern for maintaining a ground connection.

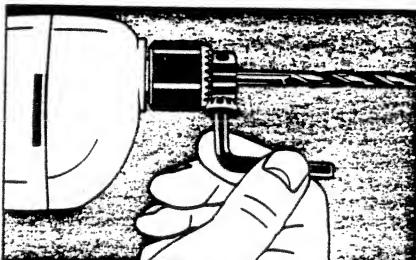
NOTE: DOUBLE-INSULATION does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool. **CAUTION:** When servicing Double-Insulated Tools, use ONLY IDENTICAL REPLACEMENT PARTS. Replace or repair damaged cords.

EXTENSION CORD

When using this drill at a considerable distance from power source, an extension cord of adequate size must be used for safety, and to prevent loss of power and over-heating. For a 120-volt tool, the minimum size of the wires in any extension cord up to 75 feet long must be 18-gauge (American Wire Gauge). From 75 to 100 feet, 16-gauge wire is required throughout the extension. 220-volt tools require a minimum wire size of only 18-gauge in extension cord lengths up to 100 feet long. (NOTE: 16-gauge wire is heavier than 18-gauge wire and will carry current for longer distances without a voltage drop.)

Before using Extension Cords, inspect them for loose or exposed wires and damaged insulation. Make any needed repairs or replacement before using your power tool.

CHUCK



To remove the chuck from the Drill, for using a threaded shank accessory or for chuck replacement, first unplug the tool. Insert the key in the chuck and tap it sharply in the direction the tool normally rotates—see at right. This will loosen the chuck shank threads and the chuck may be unscrewed by hand.

Do not lubricate the three chuck jaws or the inside of the chuck; however, a light film of oil can be applied to the outside of the chuck to prevent any rust from forming.

UNPLUG DRILL

Turn collar to open chuck jaws. Insert bit into chuck as far as it will go. Tighten chuck collar by hand. Place chuck key in each of the three holes, and tighten in clockwise direction. It's important to tighten chuck with all three holes. To release bit, turn chuck key counterclockwise in just one hole, then loosen chuck by hand.



4. OPERATION

CARE IN DRILLING

Twist drills are brittle and will break if enough bending stress is applied. To avoid stress on the drill bit, try extending your index finger along the side of the drill-housing with your middle finger on the trigger. Remember—guide the tool, don't force it! Should the tool become overheated, run it free of any load at maximum speed. The drill will cool faster by running it without load.

DRILLING IN METAL

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricant that works best is sulphurized cutting oil. Aluminum is best drilled with kerosene.

DRILLING IN WOOD

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use Power Drill Wood Bits with a shank size that will fit your drill's chuck. Work that is apt to splinter should be backed up with a block of wood. Let up on the pressure just before the tip cuts through, this will give a good clean hole.

ACCESSORIES

Recommended accessories for use with your Drill are shown below and in Black & Decker catalogs (CAUTION: The use of any other accessory or attachment might be hazardous.) For safety in use, the following accessories should be used only in the sizes specified below:

BITS, METAL DRILLING — Up to $\frac{1}{4}$ " with $\frac{1}{4}$ " DRILL, up to $\frac{3}{8}$ " with $\frac{3}{8}$ " DRILL.

BITS, MASONRY DRILLING — Up to $\frac{1}{2}$ ".

BITS, WOOD DRILLING — Up to $\frac{1}{2}$ " with $\frac{1}{4}$ " DRILL; up to $\frac{3}{4}$ " with $\frac{3}{8}$ " DRILL.

HOLE SAWS — Up to $1\frac{1}{8}$ " with $\frac{1}{4}$ " DRILL; up to $1\frac{1}{2}$ " with $\frac{3}{8}$ " DRILL.

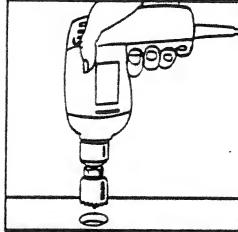
WIRE BRUSHES — Up to 3" diam. GRINDING WHEELS — Up to 2" diam.

BUFFING WHEELS — Up to 4" diameter.

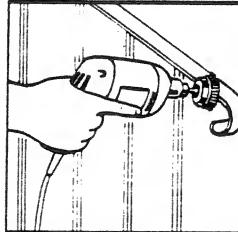
BACKING PADS — 4 $\frac{1}{2}$ " diameter. SANDING DISCS & POLISHING BONNETS up to

5" diameter.

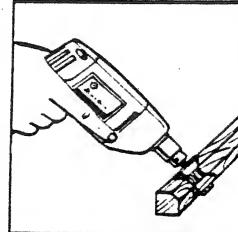
We strongly recommend that your first purchase be the No. U-2106 Safety Glasses which should be worn when using all drill accessories.



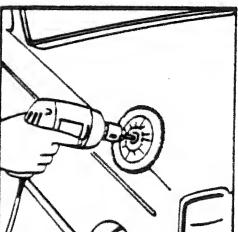
HOLE SAWS will cut larger diameter holes in wood up to $\frac{3}{4}$ " thick.



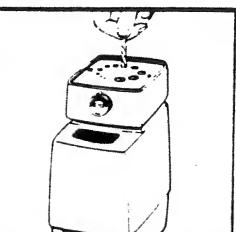
WIRE CUP BRUSH removes rust, scale, and old paint from metal surfaces.



SHAPING SET includes 3 cutters—bevel, bead and corner round.



POLISHING BONNETS. For cleaning, polishing, waxing of cars, floors, etc.



DRILL BIT SHARPENER enables you to extend the useful life of your drill bits.



PAINT MIXER. Thoroughly mixes paint in up to 1-gal. cans. Fast, easy. CAUTION: Keep paint and thinners off of drill to prevent serious damage to plastic.



SAFETY GLASSES (No. U2106). Lightweight, clear plastic with side shields. Wear alone or over regular glasses.

3. OPERATION

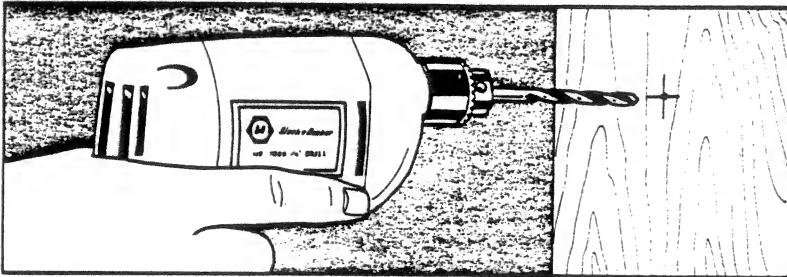
SWITCH

To start Drill, depress trigger switch; to stop Drill, release trigger. To lock trigger in "ON" position for continuous operation, depress trigger and push up locking button (located below the trigger), then gently release trigger. To release locking mechanism, depress trigger fully, then release it. Before using the tool (each time) be sure that the lock button release mechanism is working freely.

Do not lock the switch "ON" when drilling by hand so that you can instantly release the trigger switch if the bit binds in the hole.

Be sure to release the switch locking button before disconnecting the plug from the power supply. Failure to do so will cause the tool to start immediately the next time it is plugged in. Damage or injury could result.

The Variable Speed Trigger Switch (Nos. 7014 & 7114 Drills only) permits speed control — the farther the trigger is depressed, the higher the speed of the Drill. **NOTE:** Use lower speeds for starting holes without a center punch, drilling in metal or plastics, driving screws, drilling ceramics, or mixing paint. Higher speeds are better for drilling wood and composition boards, and for using abrasive and polishing accessories.



DRILLING

1. Unplug the Drill when attaching or changing bits or accessories.
2. Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use high-speed steel twist drill bits or hole saws. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.
3. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a wood "back-up" block to prevent damage to material.
4. Center-punch an indentation at the point to be drilled. This will overcome tendency of bit to slip around on a smooth surface. Place the tip of bit in indentation and turn motor "ON." **NOTE:** With the Variable Speed Drills, holes can be started at low speed without the need for center punching.
5. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall motor or deflect bit. To minimize stalling on breaking through the material, reduce pressure on drill and ease the bit through last part of hole.
6. Hold drill firmly to control the twisting action of the drill.
7. THE DRILL STALLS if it is being overloaded or improperly used. RELEASE TRIGGER IMMEDIATELY, remove drill bit from work, and determine cause of stalling. DO NOT CLICK TRIGGER OFF AND ON IN ATTEMPT TO START A STALLED DRILL.
8. Keep motor running when pulling bit back out of a drilled hole. This will help prevent jamming.

CLEANING & LUBRICATION

Use only mild soap and a damp cloth to clean the tool. Many household cleaners contain chemicals which could seriously damage the plastic. Also, do not use gasoline, turpentine, lacquer or paint thinner, dry cleaning fluids or similar products. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Self lubricating bearings are used in the tool and periodic relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a B&D Service Center for a thorough cleaning, inspection and lubrication of the gear case.

IMPORTANT

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush, inspection and replacement), should be performed by Black & Decker Service Centers or other qualified service organizations, always using Black & Decker replacement parts. When servicing Double-Insulated Tools, it is extremely important that ONLY IDENTICAL REPLACEMENT PARTS BE USED and that REASSEMBLY OF TOOL IS IDENTICAL TO THE ORIGINAL ASSEMBLY.

HOME USE WARRANTY (A FULL ONE YEAR WARRANTY)

Black & Decker warrants this product for one year against any defects that are due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to the seller (if a participating retailer) for free replacement (proof of purchase may be required). The unit may also be returned to a Black & Decker Service Center or Authorized Service Station, listed under "Tools Electric" in the yellow pages for free replacement or repair at our option. This warranty does not apply to accessories. This warranty gives you specific legal rights and you may have other rights which vary from state to state. Should you have any questions, contact your nearest Black & Decker Service Center Manager.



**THE BLACK & DECKER MFG. CO.
Towson, Md. 21204, U.S.A.**

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